

The invention relates to a system for matching an antenna (ANT) for a wireless communication device, the system comprising: detecting means (4, 5, 12) to detect the matching of the antenna (ANT) and to generate a matching signal on the basis of the detected matching, control means (7) to examine said matching signal, to determine the need for matching, and to generate a control signal on the basis of said matching signal, and antenna matching means (9) to adjust the matching of the antenna (ANT) on the basis of said control signal. The invention relates also to a wireless communication device and a method for matching the antenna of a wireless communication device.

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IN THE CLAIMS:

Please cancel Claims 1, 4 and 11 without prejudice.

Please replace the following claims as rewritten below:

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2. (Amended) A system for matching an antenna (ANT) for a wireless communication device, **characterized** in that it comprises:

B2  
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C1 } detecting means (4, 5, 12) to detect the matching of the antenna (ANT) by measuring the radio power reflected from the antenna (ANT) and means (6) to generate a matching signal on the basis of the measurement on the reflected radio power,

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C1  
control means (7) to examine said matching signal, to determine the need for matching, and to generate a control signal on the basis of said matching signal, and

antenna matching means (9) to adjust the matching of the antenna (ANT) on the basis of said control signal.

5. (Amended) A wireless communication device (MS) comprising at least an antenna (ANT), **characterized** in that the wireless communication device (MS) also comprises:

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detecting means (4, 5, 12) to detect the matching of the antenna (ANT) by measuring the radio power reflected from the antenna (ANT) and means (6) to generate a matching signal on the basis of the measurement on the reflected radio power,

control means (7) to examine said matching signal, to determine the need for matching, and to generate a control signal on the basis of said matching signal, and

antenna matching means (9) to adjust the matching of the antenna (ANT) on the basis of said control signal.

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7. (Twice Amended) The wireless communication device (MS) according to claim 5, **characterized** in that said detecting means (4, 5, 12) comprise means (12) to measure a distance and means (6) to generate the matching signal on the basis of said distance measurement.

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9. (Twice Amended) The wireless communication device (MS) according to claim 5, in which the antenna (ANT) is arranged to be placed in at least two different positions, **characterized** in that said detecting means (4, 5, 12) comprise means (12) to examine the position of the antenna (ANT) and means (6) to generate the matching signal on the basis of the position of the antenna (ANT).

10. (Twice Amended) The wireless communication device (MS) according to claim 5, comprising at least a keypad cover (13) arranged to be placed in at least two different positions, **characterized** in that said detecting means (4, 5, 12) comprise means (14) to examine the position of the keypad cover (13) and means (6) to generate the matching signal on the basis of the position of the keypad cover (13).

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12. (Amended) A method for matching the antenna of a wireless communication device, **characterized** in that in the method, the matching of the antenna (ANT) is detected by measuring the radio power reflected from the antenna (ANT), a matching signal is generated on the basis of the detected matching, said matching signal is examined to determined the need for matching the antenna (ANT), wherein a control signal is generated on the basis of said matching signal, and the matching of the antenna (ANT) is adjusted on the basis of said control signal.

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14. (Amended) The method according to claim 12, **characterized** in that said matching signal is generated by measuring the